APPENDIX B

Spill Response Field Guide Emergency Procedures
Response Action Checklist

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Lind Marine Incorporated

SPILL RESPONSE FIELD GUIDE

EMERGENCY PROCEDURES RESPONSE ACTION CHECKLIST

REVISED Jul 2015

QUICK REFERENCE EMERGENCY CONTACT NUMBERS

Lind Marine Management:

Aaron Lind:	cell (707) 974-3913
Christian Lind:	cell (707) 974-3911
Mike Lind:	cell (707) 974-5844
Skyler Coleman:	cell (707) 291-6367
Aric Weinzinger:	cell (707) 484-6576
Bill Butler:	cell (925) 785-0057
Office:	**(707) 762-7251**

United States Coast Guard:

National Response Center (NRC):	(800) 424-8802
Sector San Francisco:	(510) 437-3073

California Office of Spill Prevention and Response (OSPR):

Spill Reporting:	(800) 852-7550
Contact:	(916) 445-9338

Spill Response Contractors (OSRO):

NRC Environmental:	(631) 224-9141

Emergency Action Checklist

1. SAFETY OF PERSONNEL: ESTABLISH SAFETY AND SECURITY ZONE

- ❑ Warn all persons in the immediate area.
- ❑ Initiate evacuation of all non-essential personnel, vessels and equipment.
- ❑ Eliminate ignition sources.
- ❑ Determine product information: toxicity, flammability, etc. (consult MSDS)
- ❑ Determine and enforce personal protective equipment (PPE).
- ❑ Establish safety zone.

2. STOP THE FLOW

- ❑ Close valves and headers, other shutoff features.
- ❑ Employ damage control.

3. ASSESSMENT

- ❑ Assess damage and spill volume, movement, weather, tide, and current conditions.

4. CONTAINMENT

- ❑ Identify environmentally/economically sensitive area for protection.
- ❑ Initiate containment and diversion.

5. NOTIFICATION

- ❑ Notify Lind Marine Management / QI: Primary – Bill Butler (925) 785-0057 Secondary – Aaron Lind (707) 974 3913
- ❑ Report to USCG NRC and local COPT: NRC – (800) 424-8802 Sector SF: (510) 437-3073
- ❑ Report to California OSPR (to be done by QI/Management): (800) 852-7550
- ❑ QI / Lind Marine Management notify and mobilize OSRO/RAC as necessary.

6. ACTIVATE COMMAND ORGANIZATION

- ❑ Mobilize equipment and manpower.
- ❑ Create and implement communications plan.

7. RECOVERY STRATEGIES

- ❑ Evaluate and prioritize resources.
- ❑ Offshore recovery.
- ❑ Onshore cleanup and restoration.

8. INTERIM DISPOSAL

- ❑ Onsite sorting and storage.
- ❑ Arrange with shore-side support for disposal in approved manner, as necessary.
- ❑ Transport for recycling/disposal.

Emergency Action Checklist (continued)

9. DECONTAMINATION

- ❑ Minimize exposure to personnel.
- ❑ Establish decontamination procedures.
- ❑ Monitor site for changing conditions.

10. DOCUMENTATION

- ❑ Initial Event Report Form.
- ❑ CG 2692 and other req'd follow-up reports.
- ❑ Vessel official log.

1. REPORTING AND NOTIFICATION

1.1. Company Policy

When a spill (oil or other hazardous substance) occurs from a Lind Marine vessel, the QI must be contacted as soon as possible. In the event of potential loss of life, health or other public safety hazard, first contact the nearest port of call and/or USCG for emergency services, and then contact the QI.

1.2. Reporting

Reporting and notification are two different types of actions. Reporting is required by law and must be done immediately. Failure to report spills to appropriate federal and state agencies is a crime separate and apart from the discharge.

General Vessel Reporting Sequence

Person Detecting Spill
(verbal)

↓

Officer on Watch
(verbal)

↓

Master/Person in Charge
(verbal)

↓

Lind Marine Management / Qualified Individual (QI)
(initial verbal/written)
Primary: Bill Butler (925) 785-0057
Secondary: Aaron Lind (707) 974-3913

↓

QI will notify:
USCG NRC (800) 424-8802
California OSPR (800) 852-7550
NRC Environmental – OSRO (631) 224-9141
(initial verbal/written)

1.3. Initial Report Form

The Initial Event Report Form (following pages) should be used to report a spill. The oriinal form must be maintained on the vessel until removed by the Master/Person In Charge, an authorized agency, or Lind Marine representative. Documentation of each notification must be recorded on the second page of the form. Several federal and state agencies are preprinted for quick reference. Actual agencies notified will vary according to the location and nature of the spill.

It is understood that not all of the relevant information may be known at the initial time of reporting. Report only what is known; do not guess or speculate. An update to relevant agencies can be submitted as more information becomes available. At a minimum, the following information should be reported initially:

1) Nontank vessel name, size, type, call sign, official number, course and location.
2) Date and time of event.
3) Nature of event, damage, and vessel condition.
4) Number of persons on board, and any injury data.
5) Estimate of amount of discharge, oil type, and quantity onboard.
6) Actions planned.
7) Radio frequency monitored.

INITIAL EVENT REPORT FORM

Initial notification must not be delayed pending collection of all information

Date/Time of Report:	Reporter's Name:	Company:	Date/Time of Event:
VESSEL/BARGE INFORMATION:		Type of Event:	
Towing/Pushing Vessel Name:		Spill # *(assigned by NRC)*:	
Barge Name:		Vessel Location (Geo reference point or lat-long and intended track:	
O/N:			
Country of Reg: US	Call Sign:		
Radio Frequency:		Course/Speed:	
Size/Type:			
# of Crew:			
WEATHER CONDITIONS:		**TIDAL CONDITIONS:**	
Weather:		Tide (Ht., rising/falling):	
Visibility:		Current (speed/direction):	
Wind:	Wind Speed:		
Vessel Operations Underway at Time of Event:			
Identify any facilities and/or other vessels involved:			
SPILL INFORMATION:			
Type of product and quantity discharged – best estimate based on flow rate, time elapsed, tank capacity, etc.			
Type/quantity of oil onboard:			
Cause of discharge (if known):			
Potential environmental threats – shorelines, habitats, boat harbors, etc.:			
Safety, containment and response actions initiated or planned:			
Need for outside assistance:			
Extent of any injuries/fatalities/damage as a result of the incident, potential fire or safety hazards:			
Current condition of vessel:			
Insurance/PI Club contact:			
Date/Time of Next Report:			

OIL SPILL RESPONSE – EMERGENCY PROCEDURES

1. **WARN PERSONNEL** — Enforce safety and security measures
2. **STOP THE PRODUCT FLOW** — Act quickly, secure pumps, close valves, etc.
3. **SHUT OFF IGNITION SOURCES** — Secure motors, electrical circuits, open flames.
4. **CONTAIN/CONTROL SPILL** — Use sorbents, boom. If gasoline, use diversion booming DO NOT CONTAIN!
5. **NOTIFY QI, OPERATIONS** — Primary: Bill Butler (925) 785-0057
   Secondary: Aaron Lind (707) 974-3913
   Secondary: Travis Stephens (707) 974-3912
6. **NOTIFY NRC (USCG/EPA)** — (800) 424-8802
7. **NOTIFY STATE AGENCIES** — CA OES / OSPR: (800) 852-7550
   (QI will notify state agencies)
8. **SUPPLEMENTAL:**
   - **a.** Lind Marine Qualified Individual (QI) will notify all regulatory agencies, activate OSRO, and mobilize appropriate response.
   - **b.** Vessel Master/PIC assumes duties of Initial On-Scene Commander and takes appropriate action to stop the discharge, maintain personnel safety, contain/control/recover spilled oil, and minimize effects of the spill on the environment until relieved by Lind Marine authorized representative.
9. **SPILL RESPONSE ORGANIZATIONS UNDER CONTRACT (OSRO):**
   - **a.** NRC Environmental Services, (631) 224-9141

NOTIFICATION RECORD			
Date/Time	**Organization Notified**	**Name of Contact**	**Person Making Notification**
	Lind Marine Qualified Individual		
	USCG NRC		
	CA OES/OSPR		
	OSRO		
	Other		

2. EMERGENCY PROCEDURES

The procedures to mitigate and control a discharge are summarized below.

2.1. Pipe / Hose Leak

The incident of a pipe/hose leak is most likely associated with transfer (fueling) operations, or from failure of an equipment hydraulic line. General response actions to be taken during this type of event are listed below.

Pipe / Hose Leak Checklist

1. SAFETY OF PERSONNEL:

- ❑ Warn all persons in the immediate area.
- ❑ Sound general alarm (if necessary)
- ❑ Determine if any injuries have occurred.
- ❑ Eliminate ignition sources.
- ❑ Evaluate vessel / barge stability
- ❑ Determine safety requirements (including PPE; refer to MSDS)
- ❑ Establish safety zone.

2. STOP THE FLOW

- ❑ Shut down pumps or equipment.
- ❑ Close valves, headers, pipes, hoses, etc.
- ❑ Isolate source of leak.
- ❑ Apply temporary patch.

3. INITIATE CONTAINMENT

- ❑ Assess incident situation (spill volume, movement, weather, etc.)
- ❑ Employ containment to keep spilled materials on deck.
- ❑ Identify environmentally sensitive areas.
- ❑ Deploy containment boom and response equipment.
- ❑ Maintain containment efforts until assistance arrives.

4. REPORTING

- ❑ Report event to Lind Marine Management / QI and provide information on Initial Event Report Form.
- ❑ Lind Marine Management / QI report event to USCG NRC and Cal OSPR.

5. DOCUMENTATION

- ❑ Vessel and Barge Logs
- ❑ Initial Event Report Form
- ❑ Other Forms/Reports as required.

2.2. Tank Overflow Checklist

Tank overfilling is most likely associated with fueling operations. In the event a tank were overfilled and a spill occurred on the deck of the barge and/or into the water, general response action steps are listed below.

Tank Overflow Checklist

1. SAFETY OF PERSONNEL:

- ❑ Warn all persons in the immediate area.
- ❑ Sound general alarm (if necessary)
- ❑ Determine if any injuries have occurred.
- ❑ Eliminate ignition sources.
- ❑ Evaluate vessel / barge stability
- ❑ Determine safety requirements (including PPE; refer to MSDS)
- ❑ Establish safety zone.

2. STOP THE FLOW

- ❑ Shut down pumps or equipment.
- ❑ Close valves, headers, pipes, hoses, etc.
- ❑ Isolate source of leak/overflow.

3. INITIATE CONTAINMENT

- ❑ Assess incident situation (spill volume, movement, weather, etc.)
- ❑ Employ containment to keep spilled materials on deck.
- ❑ Identify environmentally sensitive areas.
- ❑ Deploy containment boom and response equipment.
- ❑ Maintain containment efforts until assistance arrives.

4. REPORTING

- ❑ Report event to Lind Marine Management / QI and provide information on Initial Event Report Form.
- ❑ Lind Marine Management / QI report event to USCG NRC and Cal OSPR.

5. DOCUMENTATION

- ❑ Vessel and Barge Logs
- ❑ Initial Event Report Form
- ❑ Other Forms/Reports as required.

2.3. Fire Prevention and Control

Fuels and lube oils that may be on board Lind Marine barges are flammable. In an effort to protect against fire and explosion, strict operating procedures must be implemented. These procedures are outlined in the Fuel/Oil Transfer Procedures and include:

- No open lights.
- No smoking
- Use of non-sparking tools and equipment in fueling operations.
- Ensure portable fire extinguishers are readily accessible during transfer operations.

Barges are equipped with portable fire extinguishers, and sometimes fire pumps. All portable fire extinguishers are inspected and tested annually. Personnel are trained in fire prevention and fighting in accordance with USCG regulations and drills are conducted on a regular basis as part of the safety program.

In the event of a risk of fire/explosion, the response action checklist below illustrates general actions to be taken by the crew.

Fire/Explosion Checklist

1. SAFETY OF PERSONNEL:

- ❑ Warn all persons in the immediate area.
- ❑ Sound general alarm.
- ❑ Determine if any injuries have occurred.
- ❑ Eliminate ignition sources.
- ❑ Evaluate vessel / barge stability
- ❑ Determine safety requirements (including PPE; refer to MSDS)
- ❑ Establish safety zone.

2. INITIAL ASSESSMENT AND RESPONSE

- ❑ Assess location of fire and ability for crew to extinguish.
- ❑ Shut down pumps or equipment; close valves, headers, pipes, hoses, etc. to isolate ignition sources.
- ❑ Identify potential for a spill.
- ❑ Be prepared to contain or divert as necessary on deck, dock, land or water with boom or sorbent.
- ❑ Prevent contamination of environmentally sensitive areas.

3. REPORTING

- ❑ Report event to Lind Marine Management / QI and provide information on Initial Event Report Form.
- ❑ Lind Marine Management / QI report event to USCG NRC and Cal OSPR.

4. DOCUMENTATION

- ❑ Vessel and Barge Logs
- ❑ Initial Event Report Form
- ❑ Other Forms/Reports as required.

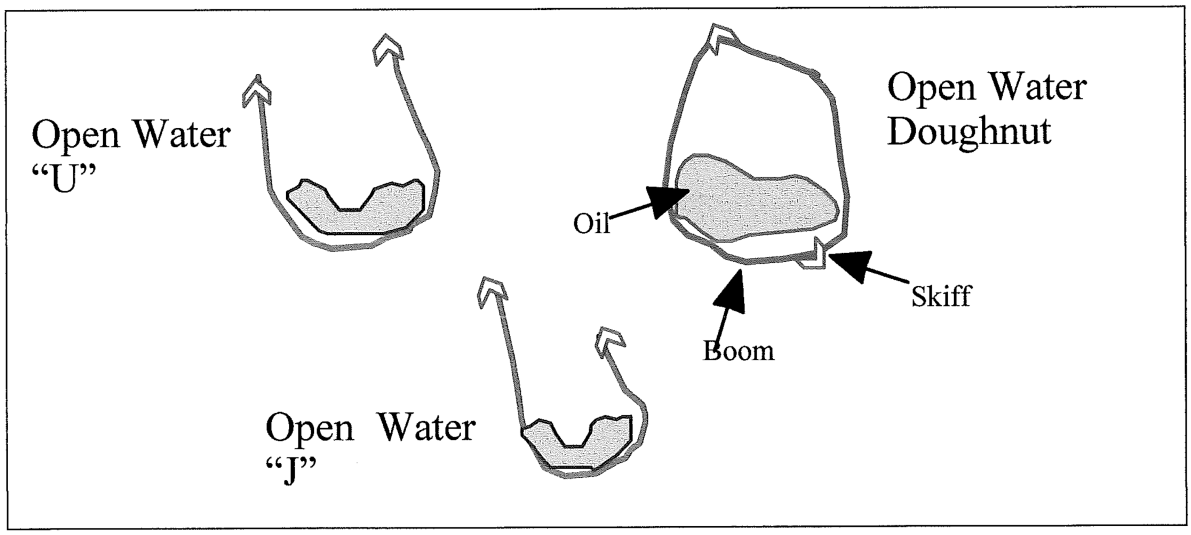
3. CONTAINMENT AND CONTROL STRATEGIES

Containment is initiated by deploying the containment boom around the source of the spill and using sorbent boom inside the loop to seal places where the boom sections adjoin. This method will assist in containing the oil from escape.

Several configurations can be used to deploy boom effectively depending on the result desired.

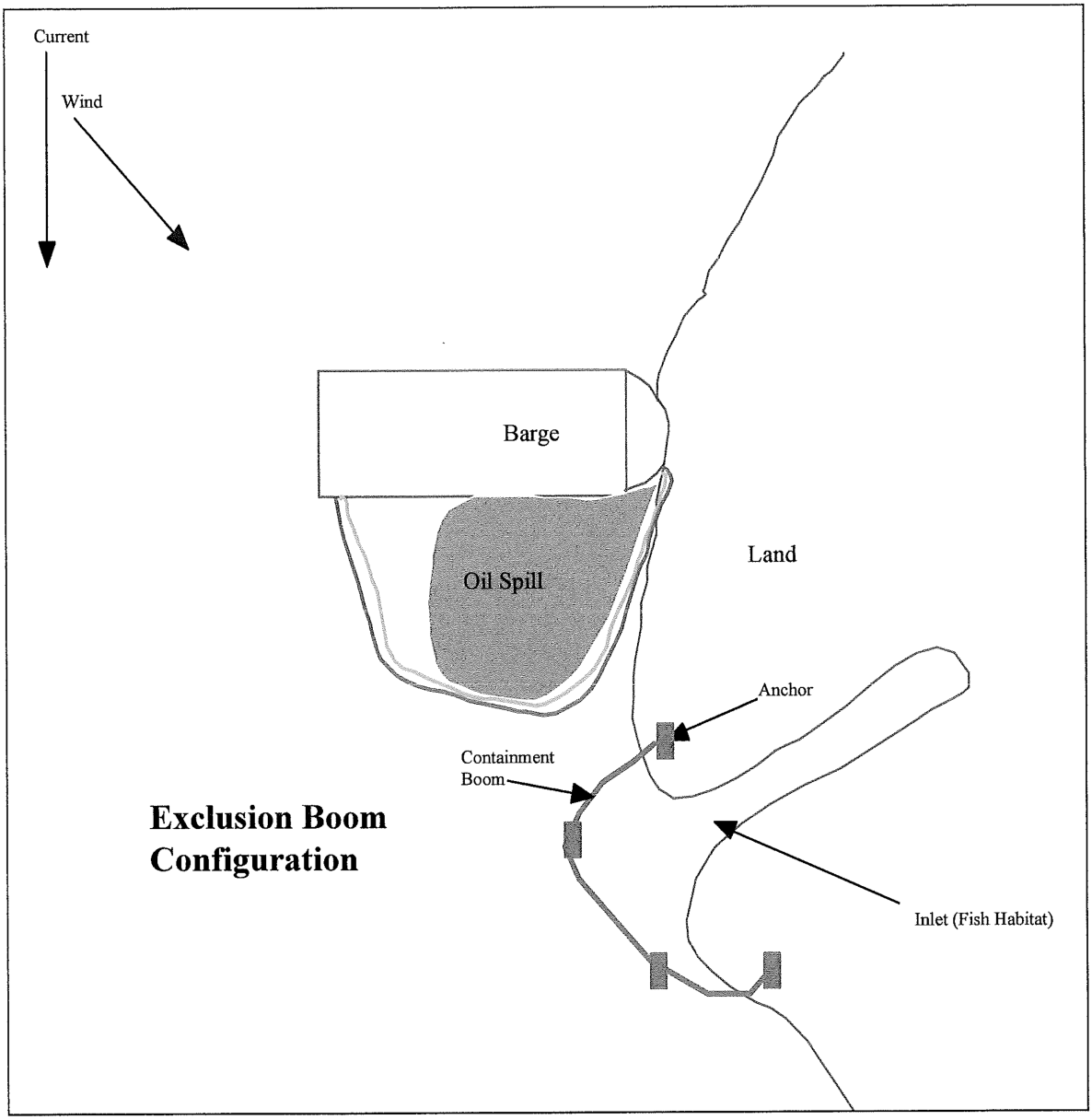
3.1. Diversionary Boom Configuration ("U", "J", or Doughnut Shaped)

To contain oil in open water, two skiffs can corral the oil by slowly pulling sweep boom around it in a "U", "J", or doughnut shape. A third vessel then can begin skimming operations or the oil can be towed elsewhere for recovery efforts. Tide, current, and weather conditions usually determine the shape of boom configuration.



3.2. Exclusionary Boom Configuration

This configuration is most useful to prevent oil from reaching an identified critical shoreline. Boom is anchored at the extreme points onshore with several reinforcement anchors placed beyond the low tide line.



3.3. Deflection Boom Configuration

To protect critical shoreline areas, boom can be placed in such a manner that oil is deflected away from and around the sensitive area. This is done by anchoring boom to shore and deploying it at a severe angle to the shoreline downstream/down current of the slick so as to deflect the flow away from critical shore areas.

Boom can also be deployed in a diversion configuration in order to divert oil towards the shore and trap it against a segment of shoreline where impact is minimal and recovery may be easily accomplished with shore-based skimmers.

Boom should be anchored at several points including the outermost end for stability.